

# Modeling the land requirements of diet and potential human carrying capacity

Dr. Christian Peters, Tufts University

HORTICULTURE & CROP SCIENCE SEMINAR

**Friday, October 11, 11:30-12:25**

**121 Fisher Auditorium (Wooster); 244 Kottman Hall (Columbus)**

Event is free and open to the public. Lunch will follow in Wooster.

Agriculture faces many challenges in continuing to feed a growing world population. Among these challenges will be confining production to the area currently under cultivation. To this end, understanding the land use implications of food consumption is an important research goal. This talk will discuss the development of a spreadsheet model of the land requirements of diet and human carrying capacity. Lessons will be shared from applying the model at the state, regional, and continental scales. The value of the model for teaching and outreach will also be discussed.



An agricultural landscape in Iowa. Photo by Dr. Peters.



Christian J. Peters, Ph.D. is an Assistant Professor in the Friedman School of Nutrition Science and Policy at Tufts University. Dr. Peters joined the faculty of the Friedman School in 2010 and teaches primarily in the Agriculture, Food, and Environment program. His research interests lie in the developing field of sustainability science, in the area of food systems. Within this broad, trans-disciplinary field, Dr. Peters currently focuses on three major topics: (1) Land requirements of the human diet, (2) Capacity for local and regional food systems, and (3) Feed needs of livestock systems. He is perhaps most well-known for his spatial analysis of potential local foodsheds of New York State, providing a concrete example of a term that has resonated with the local and regional food movements. Dr. Peters received his Master of Science and Ph.D. degrees in Soil and Crop Sciences from Cornell University and received his Bachelor of Science degree in Environmental Sciences from Rutgers University.